Office of the Legislative Auditor

State of Montana

Report to the Legislature

October 1991   Performance Audit Report

Montana Lottery Security

Department of Commerce

This report contains recommendations for improving the
security and related management controls of the Montana
Lottery. The recommendations address:

▸   Improving employee background investigation procedures.

▸   Increasing computer security controls.

▸   Expanding management controls.

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PERFORMANCE AUDITS

Performance audits conducted by the Office of the Legislative Auditor are designed to assess state government operations. From the audit work, a determination is made as to whether agencies and programs are accomplishing their purposes, and whether they can do so with greater efficiency and economy. In performing the audit work, the audit staff uses audit standards set forth by the United States General Accounting Office.

Members of the performance audit staff hold degrees in disciplines appropriate to the audit process. Areas of expertise include business and public administration, statistics, economics, computer science, communications, and engineering.

Performance audits are performed at the request of the Legislative Audit Committee which is a bicameral and bipartisan standing committee of the Montana Legislature. The committee consists of four members of the Senate and four members of the House of Representatives.

October 1991

The Legislative Audit Committee
of the Montana State Legislature:

    This is the report of our performance audit of security at the Montana Lottery of the Department of Commerce. This report contains recommendations concerning security over Lottery operations and procedures used in administering Lottery operations. The Lottery response is contained at the end of the report.

    We wish to express our appreciation to the staff of the Lottery for their cooperation and assistance.

Respectfully submitted,

Scott A. Seacat
Legislative Auditor

Office of the Legislative Auditor

Performance Audit

Montana Lottery Security

Department of Commerce

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Report Summary

Introduction

In November 1986 the people of Montana passed Legislative Referendum 100 establishing a state lottery. Lottery ticket sales began on June 24, 1987 with an instant scratch game being the first lottery game offered to the public. The Lottery has since increased the number of lottery games by adding two on-line lotto games: Lotto*America and Montana Cash. Ticket sales for Lotto*America began in November 1989 and Montana Cash began in May 1991.

Section 23-5-1029, MCA, requires the Legislative Auditor to perform a comprehensive security audit every two years on all aspects of Montana Lottery operations. This is the second security audit completed since the inception of the Lottery in 1987. The first audit was completed in 1989.

Lottery management has made a good effort to establish and maintain security over Lottery operations. Areas with sufficient security include: the Lottery building; delivery of tickets; inventory and storage procedures; on-line game terminals; destruction of unsold instant tickets; validation of winning tickets; and background investigations for retailers.

This audit also identified areas where the Lottery can improve security. The following sections summarize the results of our performance audit.

Security Procedures

As part of our audit, we examined the Lottery's procedures for background investigation of Lottery personnel and security controls over the Lottery's computer system. We noted several weaknesses relative to the Lottery's procedures for investigating Lottery personnel prior to their employment with the Lottery.

Establish An Adequate Fingerprinting System

Section 23-5-1019, MCA, requires all employees to submit a full set of fingerprints to the Lottery. In addition, Lottery security policies and procedures indicate fingerprints are to be classified by the Identification Bureau at the Department of Justice and

by the FBI. We found fingerprints had not been obtained and/or classified for all Lottery employees.

We recommend the Lottery comply with statutory and internal security policies for obtaining and classifying employee fingerprints.

Document Information Obtained During Background Investigations

During our review of employee security files we noted several files did not contain documentation signifying complete background investigations were done. To provide necessary information on employee backgrounds, security files should contain documentation of all information obtained during a background investigation. We recommend the Lottery document all information obtained during employee background investigations.

Physical and Environmental Computer Controls

Physical and environmental controls protect computer hardware and software from theft, accidental destruction, power fluctuations, heat, water, dirt, and other exposures. Weaknesses in these controls unnecessarily expose the Lottery to risk of interruption of critical computer operations. We identified several areas where the Lottery could improve physical and environmental controls.

Access to Documentation Should Be Controlled

We reviewed the physical security controls governing access to the Lottery's computer system documentation. We found employees can obtain user, program, and technical system documentation due to its location. Access to system documentation should be controlled. The potential exists for unauthorized information to be obtained which could be used to compromise the security of the Stratus computer system. We recommend the Lottery control access to program and technical documentation for the Stratus computer system.

Maintain Water Detection Device in Computer Room

During our observations of the Lottery computer room, we noted there was no early warning water detection device. The location of water pipes relative to the computer system makes Lottery operations vulnerable to disruption. However, prior to completion of the audit, the Lottery installed water sensors on

the computer room floor. Such controls could help prevent disasters from occurring and minimize any recovery costs. We recommend the Lottery maintain the additional early warning water detection device in the computer room.

Use Protective Coverings For Computer Tape Delivery

During the audit we noted electronic fund transfer and warrant writer tapes transported without a protective storage container. Transportation of computer tapes without protective coverings exposes tapes to environmental dangers which could cause tape damage or destruction and loss of data resulting in disruption of Lottery operations. We recommend the Lottery transport all computer tapes in protective coverings.

Computer Security Reviews

Section 2-15-114, MCA, applies to all state agencies and specifies each department head is responsible for ensuring an adequate level of security exists for all data within the department. This law also requires the department head to ensure internal evaluations of the security program for data and information technology resources are conducted.

Our previous security audit recommended the Lottery perform such reviews. The Lottery responded by establishing a data processing security group composed of various Lottery personnel. Although this group meets regularly to discuss needed changes relative to data processing, we believe the group's activities should emphasize more intensive computer security evaluations. This would more fully satisfy the intent of the security review statute. Additionally, many of the computer security issues we identified could have been detected/addressed by an internal security evaluation performed by the Lottery. We recommend the Lottery perform more detailed data security reviews as suggested by section 2-15-114, MCA.

Management Controls

During our audit we reviewed management controls over Lottery operations relating to security. Management controls include goals and objectives, performance evaluations, management information, training, and policies and procedures. We also reviewed the effectiveness of the internal audit function for the Lottery. This included reviewing work performed by

the internal audit function and subsequent reporting responsibility.

Performance Evaluations Should Be Conducted

Lottery employees have not received performance evaluations in the last year. In addition, several employees have never been given a performance evaluation even though they have been employed by the Lottery since its inception. The Montana Operations Manual requires that employees be evaluated at least annually. We recommend the Lottery establish the completion of performance evaluations as management priority.

Management Information

We found the Lottery security department maintains only limited management information regarding security operations. Management information which is properly developed and distributed can help management make better informed decisions. The information could also help improve the security of the Lottery by indicating trends and identifying problems in various security-related areas. Additionally, properly developed management information would stimulate questions and discussions with the Lottery director and the Lottery Commission. This in turn could improve the overall operation and security of the Montana Lottery and provide information to Lottery management to assess security department performance. We recommend the Lottery establish and implement policies and procedures to improve security department management information.

Internal Audit Function

Internal auditing is an independent appraisal function established within an organization to examine and evaluate its activities as a service to the organization. The objective of internal auditing is to assist members of the organization in the effective discharge of their responsibilities. We found the audit function performed only limited electronic data processing and internal audit work in terms of specific, formalized audits. The following discusses areas where improvements are needed.

Reporting Responsibility Should Be Changed

The internal audit function should report to an individual manager or management group that allows independence from

the operations and staff being reviewed. During our audit the Lottery's internal audit function reported to the director of security who is responsible for Lottery security and also administers warehouse operations. Since these areas are routinely reviewed as part of existing internal audit work, having the internal auditor report to the director of security affected the independence of the audit function.

Lottery management has been working on an internal audit job charter for over a year; however, it was still in draft stage during our audit. Such a document would generally explain the authority and responsibilities of the internal audit function to all Lottery personnel. Additionally, the Lottery had failed to establish policies which authorize the internal audit function to review all Lottery operations.

We recommend the Lottery revise its organizational structure so the internal audit function reports to the Lottery director, finalize the internal audit charter, and establish policies specifying the role of the internal audit function.

Documentation of Audit Work Inadequate

The internal auditor did not develop audit plans prior to performing audit work. Audit plans generally summarize work to be done for presentation to management so informed decisions can be made on audit work and scope. Additionally, the internal auditor did not adequately document interviews, observations, audit tests, and conclusions. Without adequate documentation, Lottery management cannot place reliance on work performed by the internal audit function.

We recommend the Lottery require adequate documentation of internal audit work.

Training Should Be Provided

One of the key components in the management of personnel is the provision of training which will improve or enhance employees' abilities to perform their tasks. We reviewed the training provided to security, data processing, and internal audit personnel. Overall, we found the Lottery has provided only minimal training to staff in these positions. We believe employee training offers management the opportunity to expand

employee skills and at the same time improve an organization's operational capabilities.

We recommend the Lottery develop and implement appropriate training programs for security-related personnel.

Policies and Procedures Are Incomplete

Throughout the audit we identified areas where the Lottery has not developed and/or formalized security policies and procedures. These areas include on-line ticket validations, retailer/contracted employee investigations, and a card access system backup plan. Lack of policies and procedures in these areas can cause inconsistencies in Lottery operations and could compromise Lottery security.

We recommend the Lottery establish formal policies and procedures for on-line ticket validations, background investigations for retailers and contracted employees, and a backup plan for the card access system.

Chapter I
Introduction

Introduction

Section 23-5-1029, MCA, requires the Legislative Auditor to perform a comprehensive security audit every two years on all aspects of Montana Lottery operations. This is the second security audit completed since the inception of the Lottery in 1987. The first audit was completed in 1989.

Audit Objectives

The objectives of the audit were to determine:

-- Status of recommendations made in our previous security audit.

-- Adequacy of security over all aspects of Lottery operations.

-- Adequacy of management controls over Lottery operations relating to security.

-- Adequacy of security of on-line game terminals and drawing procedures performed in Montana.

-- Adequacy of security over the Lottery's Stratus computer system and Instant Lottery System software.

-- Compliance with state laws and administrative rules related to security.

Statement of Privileged and Confidential Information

Section 23-5-1030, MCA, provides "specific audit findings relating to security invasion techniques are confidential and may be reported only to the Legislative Audit Committee, the director of the Lottery, the Commission, the Attorney General, and the Governor." During our audit work we identified problem areas relating to computer security controls. We have prepared a separate report which addresses these issues.

Scope of Audit

Audit work performed focused on all aspects of security over Lottery operations and related management controls. During our audit we reviewed security over the Lottery building, lottery games, and the Lottery computer system.

Chapter I
Introduction

In 1989 the Lottery entered into an agreement with Control Data Corporation (CDC) whose corporate headquarters are located in Minneapolis, Minnesota. CDC provides computer services and ticket stock for Montana's on-line games. We observed their role in the multi-state Lotto*America drawings and reviewed the computer system used for the on-line games. We also examined security over the Lotto*America drawings held in Des Moines, Iowa.

In March 1990 the Lottery contracted with Dittler Brothers, Inc. in Atlanta, Georgia to be the new instant ticket vendor. As part of the audit, we reviewed the instant ticket production process and the computer system associated with the production of instant tickets by Dittler Brothers, Inc.

We visited Lottery marketing representatives and retailers to evaluate security measures used when delivering and storing Lottery tickets. We also reviewed methods used by both the Lottery and retailers to pay prizes to Lottery winners for instant and on-line games.

We examined management controls relating to security. This included a review of such things as Lottery goals and objectives, policies and procedures, training, and performance appraisals.

Additionally, we contacted Lottery security departments in other states to determine how their security programs operate and to compare them with the Montana Lottery's security operation.

This audit was conducted in accordance with governmental auditing standards for performance audits.

Prior Audit Recommendations

The audit reports on Lottery security issued in January 1989 had 29 recommendations suggesting ways Lottery management could improve security over various aspects of it's operations. The recommendations were in the areas of computer security, building security, and management controls. Lottery officials concurred with all the recommendations and established time frames to implement the recommendations.

During this review we found Lottery management had implemented 14 of the prior audit recommendations, 15 others were either not implemented or only partially implemented. These areas are identified and discussed in Chapters III and IV and the confidential addendum to this report.

Adequate Security Areas

Lottery management has made a good effort to establish and maintain the security of Lottery operations. Areas in which we found security to be sufficient include:

-- The Lottery building.

-- Instant games, including delivery of tickets to Lottery headquarters and retailers, inventory procedures, and storage procedures.

-- Special drawings and promotions.

-- On-line game terminals and ticket inventories.

-- Destruction of unsold instant tickets.

-- Validation of winning tickets for instant and on-line games.

-- Background investigations for retailers.

Compliance

As part of our audit we reviewed compliance with state laws, administrative rules, and policies relating to Lottery security operations. We generally found the Lottery to be in compliance with applicable requirements; however, some instances of noncompliance were found. The areas of noncompliance concerned Lottery contracts with security-related vendors, fingerprinting of staff, training of data processing staff, and internal evaluation of security over the Lottery's computer system. These issues are discussed later in the report.

Management Memorandums

During the course of the audit, we sent management memorandums to Lottery officials addressing the following areas:

-- Development of a contract between the Lottery and the on-line vendor as required by state law.

-- Establishment of procedures to assure all future vendor contracts contain provisions for Legislative Auditor access to vendor records.

-- Access to the Lottery computer room.

-- Updating position descriptions for Lottery employees.

-- Mail handling procedures.

-- Pre-printing of on-line game tickets by retailers.

-- Establishment of an automated system to review eligibility of on-line game winners.

Future Performance Audit Issues

During the course of our audit, we noted non-security related areas which indicate future performance audit work at the Lottery may be beneficial. Examples of these areas include:

-- Fiscal year 1990-91 Lottery revenues are approximately the same as in fiscal year 1987-88. However, net revenues have declined in the same time period.

-- The Lottery maintains limited management information for all its Lottery games. The Lottery does not separate expenditure information for instant and on-line Lottery games which could help show the profitability of each game.

-- A significant percentage of instant tickets are destroyed after games are completed. The Lottery does not conduct a formal cost/benefit analysis of instant ticket purchases and destructions to determine if instant ticket purchases should be reduced.

-- The Marketing and Operations departments have yet to formalize operational policies and procedures.

Introduction

In November 1986, the people of Montana passed Legislative Referendum 100 establishing a state lottery. Lottery ticket sales began on June 24, 1987 with an instant win scratch game being the first Lottery game offered to the public. The Lottery has since increased the number of Lottery games by adding two on-line lotto games: Lotto*America and Montana Cash. Ticket sales for Lotto*America began in November 1989 and Montana Cash began in May 1991.

This chapter provides an overview of Montana Lottery operations. It describes Lottery goals and objectives, organization, funding, computer operations, and instant and on-line games.

Lottery Goals

Lottery management has established several goals for the operation of the Lottery. Some of the Lottery's major goals include:

-- Increase the number of winners in instant games.

-- Emphasize the public's awareness of Lottery winners.

-- Annual game identification for long-range planning and marketability.

-- Add lottery games if in the best interest of the Lottery.

-- Increase profitability of the Lottery.

-- Develop Lottery staff potential through training.

Lottery Organization

The Montana Lottery is attached to the Department of Commerce for administrative purposes only. Lottery operations are administered by the Lottery Commission and a Lottery director. The following chart displays the organizational structure of the Lottery.

Figure 1

Montana Lottery Organization
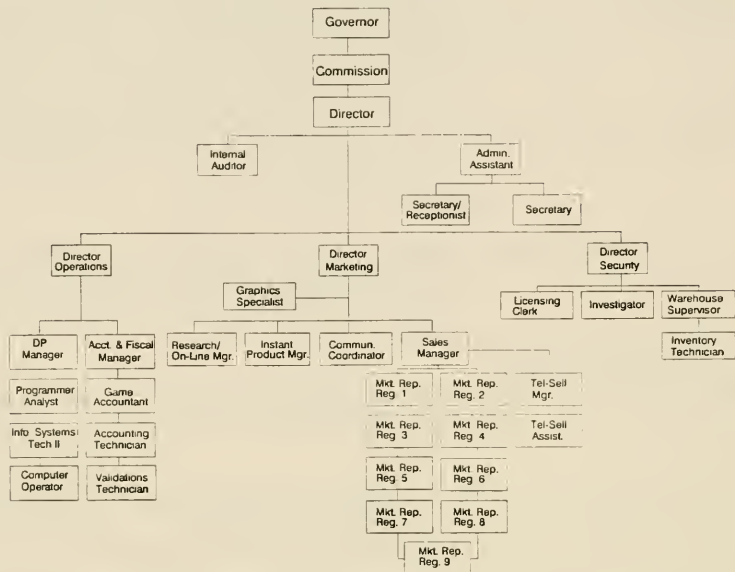
Source: Compiled by the Office of the Legislative Auditor from Lottery records.

Lottery Commission

The Lottery Commission consists of five members appointed by the Governor. Section 23-5-1006, MCA, requires three of the five members to come from specific professions. One commissioner must have a minimum of five years law enforcement experience, one commissioner must be an attorney licensed in Montana, and one commissioner a certified public accountant licensed in Montana. The remaining two board members are public members.

The Commission meets with the Lottery director at least once every three months to set policy, determine the types of games to be offered, and review Lottery activities and operations.

Legislative Liaison Committee

In January 1987 a Legislative Liaison Committee was established to report on the operations of the Lottery. According to section 23-5-1008, MCA, "The liaison committee consists of four legislators. Two members must be from the senate and two members must be from the house of representatives. The speaker of the house and the senate committee on committees shall appoint the members of the liaison committee, and no more than two members may be of the same political party. No legislator who has any ownership in any gambling device or establishment may be appointed to the liaison committee. The liaison committee is to meet once each fiscal year with the commission in Helena and report to the Legislature on the activities and operations of the state lottery."

Lottery Staff/ Department Responsibilities

The Montana Lottery is authorized a total of 36 FTE. The Lottery has an administrative function which includes the Lottery director who is appointed by the Governor and four other FTE, including a recently-vacated internal/EDP audit position. The remaining 31 FTE are located in one of the three main departments of the Lottery: Operations, Marketing, and Security. The following is a brief description of each department within the Lottery.

Operations Department

The operations department is authorized nine FTE, including a director of operations who administers the department. Other FTE include: an EDP manager and three EDP staff, an accounting and fiscal manager, a game accountant, an accounting technician, and a validation technician.

The operations department is responsible for accounting and fiscal management of the Lottery, including such things as establishing Lottery budgets and monitoring ticket sales. Other responsibilities include validating winning tickets and administering data processing operations.

Marketing Department

The marketing department is authorized 17 FTE, including a director of marketing who administers the department. Other FTE include a product manager, sales manager, two telephone sales personnel, a marketing researcher, nine marketing representatives, and two administrative support positions. In order to deliver tickets to retailers in different parts of the state, the marketing representatives are located in Billings, Bozeman, Butte, Great Falls, Glasgow, Helena, Kalispell, Miles City, and Missoula. The marketing representatives are also responsible for promoting the Lottery's instant and on-line games. This is done by distributing point-of-sale materials to the retailers, negotiating space with retailers for product displays, and attending special promotions for the Lottery in their regions.

The marketing department is responsible for designing and managing Lottery games, researching and analyzing Lottery sales, distributing instant game tickets to retailers, and promoting the Lottery.

Security Department

The security department is authorized a total of five FTE which includes a director of security who is responsible for overseeing the operations of the department, including the Lottery warehouse. Other FTE include an investigator, a licensing clerk, and two warehouse personnel.

The department is responsible for monitoring all aspects of security over Lottery operations. This includes performing background checks of all employees and ticket retailers, issuing licenses to retailers, and directing investigations of alleged Lottery fraud. The department also monitors special drawings and promotions, establishes security policies and procedures for new games designed by the Lottery, and ensures the security of the Lottery's computer system. The overall goal of the security department is to maintain security, honesty, fairness, and integrity over Lottery operations.

Lottery Funding

Lottery operations are funded through the sale of instant and on-line game tickets. Section 23-5-1027, MCA, specifies how each dollar spent on Lottery tickets is to be distributed. This statute requires a portion of the money collected from ticket sales to be used for the payment of prizes, retailer commissions, and operating expenses. Funds not used for these purposes are considered net revenue and through June 30, 1991 were distributed on a quarterly basis to the Office of Public Instruction as state equalization aid to public schools.

The statutorily-determined percentage to be distributed has changed since the inception of the Lottery. The percentages were changed by the Legislature to give the Lottery more operational flexibility. Table 1 illustrates the statutory changes made regarding the distribution of revenue from the Lottery's inception in fiscal year 1987-88 through fiscal year 1990-91.

Table 1

Distribution of Revenue Requirements
Fiscal Years 1987-88 through 1990-91

Area for Distribution	FY 1987-88 through FY 1989-90	Effective FY 1990-91
Prize Money	45%	Minimum 45%
Retailer Commissions	5%	No more than 10%
Operating Expenses	15%	Not specified
Office of Public Instruction	Revenue not used for prizes, commissions, and operating expenses	Revenue not used for prizes, commissions, and operating expenses

Source: Compiled by the Office of the Legislative Auditor from section 23-5-1027, MCA.

Starting July 1, 1991, a specified percentage of the net revenue will be transferred to the Board of Crime Control to fund state grants to counties for youth detention services. For fiscal year 1991-92 the percentage will be 1.6 percent. Starting July 1, 1992, the percentage will increase to 9.1 percent but the dollar

amount is not to exceed one million dollars in any future fiscal year.

Sales and Distribution of Revenues

During its first four years of operation, the Lottery had sales of $82.6 million and transferred $19.6 million to the Office of Public Instruction (OPI). Lottery sales and distributions of revenues for fiscal years 1987-88 through 1990-91 are displayed in the following table:

Table 2					
Montana Lottery Revenue and Distributions (Unaudited)					
Fiscal Years 1987-88 through 1990-91 (million)					
	FY 87-88	FY 88-89	FY 89-90	FY 90-91	TOTAL
Revenues					
Sales	$25.6	$11.6	$21.5	$23.9	$82.6
Distributions					
Prizes	$11.5	$ 5.3	$10.2	$11.7	$38.7
Commissions	1.4	.7	1.4	1.3	4.8
Operations	4.3	2.8	5.7	6.7	19.5
OPI Transfers	8.4	2.8	4.2	4.2	19.6

Source: Compiled by the Office of the Legislative Auditor from Lottery records.

Instant Games

Introduction

The Lottery offers the public a choice of instant games by offering two games simultaneously. This allows the Lottery to offer one instant game with more high-tier winners and one with more low-tier winners. Instant games were the first games offered by the Lottery. Instant games allow players to determine if they are winners by rubbing a latex coating off a ticket. If three identical play symbols appear on the ticket the player wins instantly. If a winning ticket is $50 or less, it can be redeemed by the retailer from which the ticket was purchased.

If the ticket prize is more than $50, it must be redeemed by the Lottery. This can be done by a player either bringing the ticket to the Lottery or mailing the ticket to the Lottery. Figure 2 indicates sales figures for instant games one through twenty-six.

Figure 2

Montana Lottery Instant Games
Tickets Sold Games 1-26
Fiscal Years 1987-88 through 1990-91

Source: Compiled by the Office of the Legislative Auditor from Lottery records.
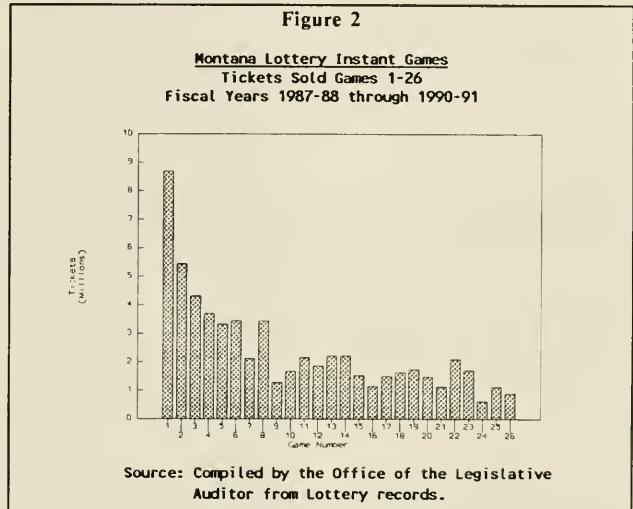
The following sections discuss the Lottery's instant game cycle including: game design and prize structure, ticket delivery and inventory, ticket distribution, ticket sales, and procedures followed by Lottery personnel at the end of an instant game.

Game Design/Prize Structure

Instant games are designed by various Lottery staff who meet periodically to discuss game strategies, prize structures and ticket specifications. Once this information is determined, working papers are developed which detail the specifications for the game, such as the Guaranteed-Low-End-Prize-Structure (GLEPS) and physical appearance of the tickets. After the working papers are compiled, they are sent to Dittler Brothers, Inc. which reviews the working papers and returns them to the

Lottery with suggested changes and/or questions. Several draft versions of working papers are developed and reviewed by both the Lottery and Dittler Brothers, Inc. before a final game design and prize structure is selected. Upon approval of the final working papers by Lottery personnel, they are returned to Dittler Brothers, Inc. so they can begin printing tickets.

Ticket Delivery/Inventory

All instant tickets are printed by Dittler Brothers, Inc. in Atlanta, Georgia and shipped directly to Lottery headquarters via tractor/trailer. When the trailer arrives at Lottery head-quarters, a member of the security department inspects the trailer for signs of tampering. This entails comparing the seal and lock numbers on the trailer to those listed on the bill-of-lading and conducting a visual inspection of the trailer. Once the security representative is satisfied the trailer has not been tampered with, the trailer seal is cut and the trailer opened. The contents are then inspected by security or warehouse personnel for any damage or signs of tampering to the pallets of tickets which are shrink-wrapped in plastic. The trailer is then un-loaded and the tickets moved inside the Lottery warehouse. Once the tickets are in the warehouse, a 100 percent inventory is conducted. Using computer-generated information supplied by Dittler, a visual inspection of each pack of tickets is performed. The packs are examined to ensure: all tickets are present, the latex covering on the first page of tickets is free from scratches, play symbols are covered by latex, the general appearance of tickets is good, and the shrink wrap on individual packs is free of tears. Any defective packs are recorded and pulled from inventory. As part of the inventory process, the Lottery's internal auditor conducts a GLEPS test on the tickets. The main purpose of the GLEPS test is to assure ticket shipments meet the prize structure approved by the Lottery. After the inventory is complete the tickets are separated into marketing representative regions in the warehouse. Once the tickets are separated, they are ready for delivery to the marketing representatives.

Ticket Distribution

At the start of a new instant game the tickets are either picked up by the marketing representatives or delivered to the marketing representatives by Lottery staff. The marketing representatives store tickets in established storage areas which have been reviewed and approved by Lottery security personnel. The marketing representatives then deliver tickets to the retailers for sale to the public. Periodically, the Lottery uses United Parcel Service to deliver tickets directly to a retailer. This is usually only done when marketing representatives are sick or on vacation and a retailer needs tickets delivered as soon as possible.

During the course of the audit we observed ticket delivery and inventory procedures and found the procedures followed by the Lottery to be adequate. We also evaluated the procedures followed by the marketing representatives when picking up tickets from the Lottery and inspected a sample of ticket storage areas maintained by marketing representatives. We found the storage areas and procedures followed by the marketing representatives when picking up tickets from the Lottery to be adequate.

End-of-Game Procedures

An instant game is on sale for approximately twelve weeks with a new game being offered every six weeks. At the conclusion of each game, unsold tickets are returned by the retailers to the marketing representatives. The marketing representatives are then responsible for returning these tickets to Lottery headquarters. Upon receipt of unsold tickets from all regions, a 100 percent inventory is performed by warehouse personnel. When the inventory is complete an audit of the tickets is conducted by the Lottery's internal auditor.

During our audit work, we observed the marketing representatives return unsold tickets to Lottery headquarters and also observed Lottery personnel take inventory of these tickets. We found the procedures followed in these instances ensured that all unsold tickets are returned to the Lottery.

Ticket Disposal

Upon completion of the ticket inventory, the remaining tickets are stored for the six months a winning ticket could be submitted for prize payment. After the six-month waiting period the unsold tickets are disposed of via incineration. We observed the incineration process and found it to be effective in destroying the unsold tickets.

On-Line Games

Introduction

Currently, two on-line games are being operated by the Lottery: Lotto*America and Montana Cash. On-line lottery games are controlled by a central computer system which is attached to sales terminals at retailers' locations. A communications network is utilized to transfer information on ticket sales from the terminals to the central computer.

Lotto*America

Section 23-5-1007, MCA, allows the Lottery Commission to enter into agreements with other states to offer lottery games. The Lottery has joined 14 other states plus the District of Columbia in an on-line multi-state lottery game known as Lotto*America. Lotto*America offers smaller states the opportunity of providing lottery players the chance to win larger prizes than typically possible through a state lotto game. By joining Lotto*America, Montana became a member of the Multi-State Lottery Association (MUSL) which operates Lotto*America. Montana has to assure MUSL of compliance with MUSL rules and Lotto*America game procedures. MUSL headquarters are located in Des Moines, Iowa and the Lotto*America drawings are held at a television studio in Des Moines every Wednesday and Saturday night.

Lotto*America is a six of 54 number lotto game which offers a minimum two million dollar jackpot which increases after each drawing in which the jackpot is not won. The jackpot amount increase is based on the total number of tickets sold for each drawing. Players purchase a ticket from a retailer for one dollar and select two sets of six different numbers between one and 54.

A player can have the Lotto*America terminal choose the two sets of six numbers (quick-play) or can choose themselves by marking the numbers on a play slip. If a player chooses to use a quick-play, the retailer pushes a quick-play button on the Lotto*America terminal and a ticket is produced with two sets of six numbers. If a player completes a play slip, the retailer inserts the play slip into the terminal. The terminal reads the numbers marked on the play slip and prints a ticket with those numbers. Retailers also have the option of manually entering the marked numbers into the terminal.

A Lotto*America jackpot is won if a player matches the six numbers drawn in Des Moines. Smaller prizes may also be won by matching five of six numbers or four of six. The amounts of these prizes are based upon total ticket sales for each drawing. The following figure indicates Montana sales for Lotto*America from November 1989 through August 1991.

Figure 3

Montana Lotto*America Ticket Sales
November 1989 through August 1991
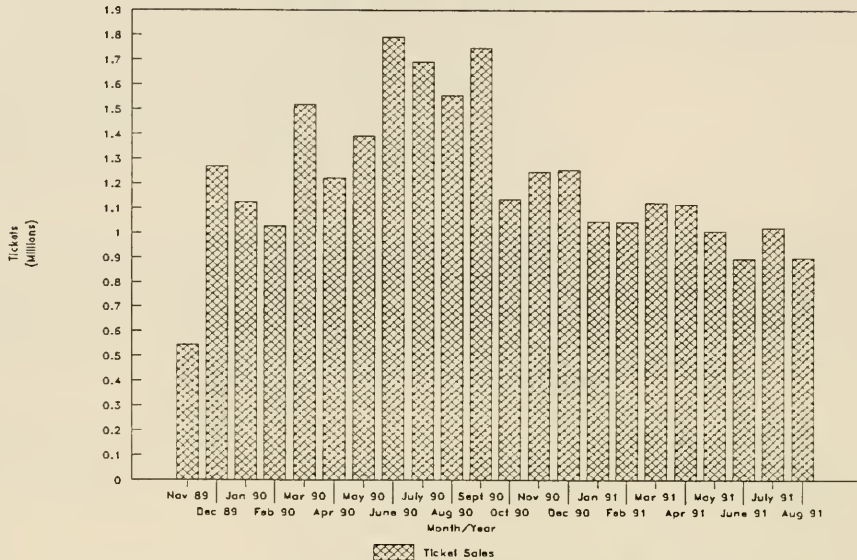
Source: Compiled by the Office of the Legislative Auditor from Lottery records.

Control Data Corporation (CDC) is responsible for operation and maintenance of the on-line terminals. CDC provides and installs terminals in locations selected by the Lottery and then supplies the retailer with ticket stock and technical assistance with terminal operations. CDC also performs any necessary maintenance relative to the terminals.

Montana's Lotto*America operations are monitored by a central computer located in Olympia, Washington which is administered by CDC. CDC's computer system monitors, stores, and compiles ticket sales information, such as the date and time tickets were purchased and the numbers selected. The integrity of CDC's computer system is verified by the Lottery's Internal Control

System (ICS) which is part of the Lottery's Stratus computer system. The ICS gives the Lottery the capability to verify the accuracy of CDC's ticket sales information for on-line games. The Lotto*America drawings in Des Moines, Iowa are also monitored in order to maintain the security and integrity of the drawings. For example, off-duty police officers and independent auditors are contracted by MUSL and MUSL members to oversee each drawing. Additionally, independent audit firms contracted by MUSL observe drawing procedures performed by each MUSL member including Montana Lottery staff at Lottery headquarters.

Montana Cash

Montana Cash is the newest state-wide lotto game starting in May 1991. The drawing for Montana Cash is held each Saturday evening.

Montana Cash is a five of thirty-seven number lotto game which offers players the chance to win a jackpot (minimum $20,000) which is smaller than the Lotto*America jackpot, but larger than a top prize typically offered via an instant game. The jackpot increases each time it is not won based on total retail ticket sales for each drawing.

Players may purchase a one dollar Montana Cash ticket from a participating retailer. As with Lotto*America, players can have their two sets of numbers chosen by the terminal via a quick-play or choose the numbers by marking a play slip. The jackpot is won by matching the five numbers on a player's ticket to those numbers drawn. In addition, $200 is won if four of five numbers are matched or $5 if three of five are matched. These smaller amounts remain constant for each drawing.

As with Lotto*America, CDC administers the computer operations for Montana Cash since tickets are purchased using the same terminals as Lotto*America. The Montana Cash drawing is monitored by an independent audit firm who assures the integrity of the drawing and compliance with established drawing procedures.

Chapter II
Background

Retailers

There are approximately 800 retailers licensed to sell instant lottery tickets in Montana. Approximately 300 of these retailers are also authorized to sell on-line lotto tickets. Before retailers are considered for a license to sell lottery tickets, they are statutorily subject to a background investigation by the Lottery's security department. The cost of a retailer license is $50 which is used to cover the expense of investigating and processing the application.

Retailers have specific responsibilities for both instant and on-line games. Some of the retailer responsibilities for instant games include: redeeming low-tier ($50 and under) instant tickets, providing security for their instant ticket stock, paying the Lottery for the tickets when they are received, and returning unsold tickets at game end. Responsibilities for on-line games include: paying low-tier (under $600) tickets, correct use and operation of the on-line terminal, and notifying CDC of any problems with the terminals. In order to spell out what is expected of retailers, the Lottery has supplied policy and procedure manuals for both instant and on-line games. Retailers can refer to the manuals for any questions they may have regarding either game. If retailers cannot find an answer in the manual, toll-free telephone numbers are provided for the Lottery and CDC.

Introduction

This chapter examines the Lottery's security department's procedures for background investigation of Lottery personnel and security controls over the Lottery's computer system. We noted several weaknesses relative to the Lottery's procedures for investigating Lottery personnel prior to their employment with the Lottery. In addition, during our evaluation of data processing controls we determined improvements could be made in the established physical/environmental controls. The following sections discuss the identified issues.

Background Investigations of Employees Could Be Improved

Employee background investigations are completed by Lottery security personnel to determine suitability for employment by the Lottery. Background investigations alert security personnel of any criminal history which could make the individual unsuitable for Lottery employment. Security personnel keep a record of background investigations for each Lottery employee in department files.

According to the Lottery security policy manual, four major sources of information are used to provide security personnel with background information on applicants and employees. They include:

-- Montana Lottery Questionnaire - Each applicant is required to complete the Montana Lottery Questionnaire. The questionnaire requests information relating to personal data, references, educational background, employment history, arrest history, driving history, gambling habits, narcotics use, military status, and physical and mental condition. The questionnaire also requests the applicant to sign an authorization permitting other organizations (state, federal, credit bureaus, doctors, etc.) to release information they may have regarding the applicant.

-- National Crime Information Center (NCIC) - Inquiries to NCIC are made through the Montana Highway Patrol. This inquiry provides Lottery security personnel with background information regarding outstanding warrants against the applicant on a nationwide level.

-- <u>Criminal Justice Information Network (CJIN)</u> - Inquiries to CJIN are also obtained through the Montana Highway Patrol. CJIN provides background information regarding outstanding warrants against the applicant on a statewide level. Both NCIC and CJIN inquiries allow security personnel to obtain initial background information on the applicant prior to employment at the Lottery.

-- <u>Fingerprints</u> - Fingerprints are obtained and sent for classification to the Department of Justice's Identification Bureau and the Federal Bureau of Investigation (FBI). Classified fingerprints provide the major source of information regarding the potential criminal history of the employee. In addition, they may provide information not furnished through NCIC or CJIN inquiries.

During our audit work we found background investigation procedures followed by security personnel could be improved. The following sections describe the noted issues.

Establish An Adequate Fingerprinting System

Section 23-5-1019, MCA, requires all employees to submit a full set of fingerprints to the Lottery. In addition, Lottery security policies and procedures indicate fingerprints are to be classified by the Department of Justice's Identification Bureau and the FBI. As noted, fingerprints are a major source of information regarding the potential criminal history of an employee. Consequently, Lottery statute and policy requires fingerprints to be obtained and sent for classification before an employee is hired. This way, security personnel receive information on the classified fingerprints as soon as possible.

We judgmentally selected ten employee security files to review for completeness of background investigations. We found two files did not contain any record of fingerprints and three others had fingerprint records which had not been submitted to state and federal authorities for classification. Although the two employees who had not been fingerprinted were hired within nine months of our review, the three employees with non-classified fingerprints had been employed since 1989.

Since fingerprints have not been obtained for all employees, the Lottery has neither complied with section 23-5-1019, MCA, nor it's internal security policies and procedures. In addition, fingerprints not classified by the Identification Bureau or the FBI provide no information to security personnel regarding the criminal history of an employee.

Lottery security staff indicated the reason some employees have not been fingerprinted and/or their fingerprints submitted for classification is due to the Lottery's current fingerprinting system. Security personnel believe the current fingerprinting system is inadequate because it does not create fingerprints which meet Identification Bureau and FBI requirements. For example, security personnel indicated the fingerprints in the security files which were not submitted for classification were smudged and could not be classified by the state Identification Bureau or the FBI. Security personnel indicated they were waiting to take or re-take fingerprints until they established a new fingerprinting procedure.

As a result of our audit findings, Lottery officials indicated they intend to use the services of the Identification Bureau for all fingerprinting needs. Additionally, security personnel have now obtained fingerprints for all employees and stated there will be no delays in obtaining or classifying fingerprints in the future.

Recommendation #1

We recommend the Lottery comply with statutory and internal security policies for obtaining and classifying employee fingerprints.

Document All Information Obtained During Background Investigations

During our review of employee security files we noted several files did not contain documentation signifying complete background investigations were done. We compared the files to the major sources of background information described in the security policy and procedures manual and outlined on page 19 and 20 of this report. Of the ten security files reviewed, we found seven files did not contain documentation of inquiries to NCIC and/or CJIN databases. We also noted one file was missing the Montana Lottery Questionnaire.

To provide necessary information on employee backgrounds, security files should contain documentation of all information obtained during a background investigation. Additionally, current internal security policies and procedures state all investigations should be reported in memorandum form. For example, a memorandum should be written and placed in the file each time the Montana Highway Patrol is contacted for an inquiry to the NCIC and CJIN system. This is necessary because according to Lottery security personnel, the Highway Patrol does not always send a copy of the NCIC and CJIN reports to the Lottery. Therefore, not all employee security files have documentation relating to the NCIC and CJIN inquiries even though verbal information may have been obtained.

Security personnel indicated they usually do not include documentation in a file unless they obtain adverse information about the employee. However, they also indicated some information was not in the file because they had forgotten to follow-up or misplaced the information.

To assist with employee background investigations, Lottery officials indicated they are in the process of developing a background investigation checklist. They believe this checklist will help them obtain and document all the information necessary to demonstrate a complete background investigation was done on employees. Once the background investigation checklist is developed and used by Lottery personnel, the process could be incorporated into the written policies and procedures for the security department.

Recommendation #2

We recommend the Lottery:

A. Document all information obtained during employee
    background investigations; and,

B. Complete the development of and implement the
    background investigation checklist.

Physical and Environmental Computer Controls

Physical and environmental controls protect computer hardware and software from theft, accidental destruction, power fluctuations, heat, water, dirt, and other exposures. Weaknesses in these controls unnecessarily expose the Lottery to risk of interruption of critical computer operations. We identified several areas where the Lottery could improve physical and environmental controls.

Access to Documentation Should Be Controlled

We reviewed the physical security controls governing access to the Lottery's computer system documentation. We found all employees can obtain user, program, and technical system documentation due to its location. Currently, the documentation is kept in an unlocked filing cabinet in an area with only limited control of employee access.

Access to system documentation should be controlled. The potential exists for unauthorized information to be obtained which could be used to compromise the security of the Stratus computer system. For example, users could review system documentation and subsequently exploit the Stratus operating system to gain access to Lottery data and programs or to disrupt computer operations.

Montana Lottery officials agreed with our recommendation and stated they are reviewing alternatives to better secure Stratus system documentation.

Recommendation #3

We recommend the Lottery control access to program and technical documentation for the Stratus computer system.

Maintain Water Detection Device in Computer Room

During our observations of the Lottery computer room physical and environmental controls, we noted there is no early warning water detection device. However, pressure flow detectors exist for the fire suppression system for the Lottery building.

The location of water pipes relative to the computer system makes Lottery operations vulnerable to disruption. If the water pipes were to break, the result could damage the system. Without use of the Stratus computer the Lottery would be unable to sell tickets, verify winning tickets, perform ticket inventory, or void stolen instant tickets. In addition, internal control processing for on-line games would not be possible.

Since there is limited availability of Stratus computers or compatible systems in Montana, every possible potential disaster should be considered and where possible, protected against. To ensure the timely detection of a potential water disaster in the computer room, we recommended the Lottery install an early warning water detection device inside the room. Prior to completion of the audit, the Lottery installed water sensors on the computer room floor. Such controls could help prevent disasters from occurring and minimize any recovery costs.

Recommendation #4

We recommend the Lottery maintain the additional early warning water detection device in the computer room.

Use Protective Coverings For Computer Tape Delivery

Throughout the audit, we observed the daily storage and delivery of computer tapes containing sensitive Lottery information. We found electronic fund transfer (EFT) and warrant writer (WW) tapes are transported to the Federal Reserve and Department of Administration Information Services Division without a protective storage container. The EFT tapes contain retailer information for collecting money owed to the Lottery and WW tapes contain prize recipients payment information.

Transportation of computer tapes without protective coverings expose tapes to environmental dangers which could cause tape damage or destruction and loss of data resulting in disruption of Lottery operations. Computer tapes should be safeguarded against potential environmental conditions (i.e., heat, moisture) and contaminates (i.e., dust, smoke), especially during their transportation between sources. This is necessary to ensure the quality and reliability of the magnetic media. Computer tape cases cost approximately $50 each.

To protect computer tapes, the Lottery should transport all tapes with protective coverings. Montana Lottery officials concurred with our recommendation.

Recommendation #5

We recommend the Lottery transport all computer tapes in protective coverings.

Computer Security Reviews

Section 2-15-114, MCA, which applies to all state agencies specifies each department head is responsible for ensuring an adequate level of security for all data within the department and implementing appropriate cost-effective safeguards to reduce, eliminate, or recover from identified threats to data. The statute also requires the department head ensure internal evaluations of the security program for data and information technology resources are conducted.

In the prior security audit we recommended the Lottery perform security reviews. Lottery officials concurred with our recommendation and responded by establishing a data processing security group composed of various Lottery personnel. Although this group meets regularly to discuss needed changes relative to data processing, we believe the group's activities should emphasize more intensive computer security evaluations. This would more fully satisfy the intent of the security review statute. A comprehensive internal security review would include a detailed analysis of the general and application controls in place over the data processing functions. Many of the computer security issues we identified could have been detected/addressed by an internal security evaluation performed by the Lottery.

<u>Recommendation #6</u>

We recommend the Lottery perform more detailed data security reviews as suggested by section 2-15-114, MCA.

Introduction

During our audit we reviewed management controls over Lottery operations relating to security. Management controls include goals and objectives, performance evaluations, management information, training, and policies and procedures. We also reviewed the effectiveness of the internal audit function for the Lottery. This included reviewing work performed by the internal audit function and subsequent reporting responsibility. The following sections discuss concerns we have with some of the Lottery's management controls and the internal audit function.

Performance Evaluations Should Be Conducted

According to the Montana Operations Manual performance evaluation policy section 3-0115, "the performance of each full-time and part-time employee in a permanent position. . . who has completed a probationary period shall be appraised during established evaluation periods of not more than one year duration. The rating of performance shall take place no more than sixty calendar days after the close of the evaluation period."

During our audit we determined Montana Lottery management had not conducted performance evaluations of its employees. We reviewed the personnel files of eight Lottery employees which included four security and four non-security personnel. Our review found none of these employees had a formal performance evaluation completed in the last year. Additionally, seven of these employees had never been given a performance evaluation even though they have been employed by the Lottery since its inception in 1987.

Performance evaluations are a valuable management tool used to help communicate with employees. Performance evaluations can improve employee performance through identification of strengths and weaknesses, and specify methods for improving skills and abilities. The focus of a performance evaluation should also be to improve the future performance of an employee. Lack of performance evaluations result in employees not knowing where they stand in relation to job performance,

and may lead to poor employee morale. In addition, without standards of performance it is difficult for management to monitor and track employee productivity in relation to promotions, internal job changes, or disciplinary actions.

During the security audit completed in 1989 we also found the Lottery had not completed performance evaluations of employees. In a written response at the completion of that audit, Lottery officials agreed performance evaluations should be completed and indicated they would review ways to complete evaluations in the near future. Current Lottery officials stated they continue to recognize the importance of conducting performance evaluations. However, Lottery officials indicated because the directorship of the Lottery has changed three times in four years, they have been unable to implement our recommendation. Additionally, officials indicated they have been in the process of developing the Lottery's on-line games and this has limited the time to conduct performance evaluations of employees. As a result of our findings and completed implementation of the on-line games, Lottery officials have started to conduct performance evaluations of employees.

Recommendation #7

We recommend the Lottery establish the completion of performance evaluations as a management priority.

Management Information

During our evaluation of the Lottery security department, we found the department maintains only limited management information regarding security operations. Management information which is properly developed and distributed can help management make better informed decisions. The information could also help improve the security of the Lottery by indicating trends and identifying problems in various security-related areas.

We contacted the security departments for five other state lottery programs. Our interviews indicated four of these lotteries maintain systematic and formalized management information within their security departments. Some of the documentation maintained by these states include the number of ongoing and completed investigations, tracking the total number of stolen tickets for each retailer, training received and given, and ticket deliveries. In addition, in order to keep the lottery directors informed, the security departments in these four states submit either weekly, monthly, or annual reports to the lottery director discussing all security issues.

Currently there are no policies or procedures which require the security department to develop and properly maintain adequate management information. In addition, the Lottery director of security generally provides only verbal reports on security issues to the Lottery director and the Lottery Commission. We believe development and maintenance of adequate management information could improve security department operations. This information will stimulate questions and discussion with the Lottery director and the Lottery Commission. This in turn could improve the overall operation and security of the Montana Lottery and provide information to Lottery management to assess security department performance.

Lottery officials believe because the Lottery is a small operation it is not necessary to change the current system for management information. The current system is limited to recording information in an incident log. However, the log is not formatted in a way which allows easy determination of the number and type of security issues arising at the Lottery. Security personnel believe they can identify any problem areas within the Lottery relating to security without additional management information. However, Lottery officials indicated they will try to establish and implement policies and procedures wherever possible to improve the development and maintenance of management information.

Recommendation #8

We recommend the Lottery establish and implement
policies and procedures to improve security department
management information.

Internal Audit Function

Internal auditing is an independent appraisal function esta-
blished within an organization to examine and evaluate its
activities as a service to the organization. The objective of
internal auditing is to assist members of the organization in the
effective discharge of their responsibilities. An internal audit
department typically functions under policies established by
management. A statement of purpose, authority, and responsi-
bility (a charter) for the internal audit department is usually
developed and approved by management. The charter should
make clear the purposes of the internal audit function, specify
the scope of its work, and declare the auditors are to have no
authority or responsibility for the activities they audit. Finally,
the auditing practices followed by the internal audit function
should be consistent with accepted audit guidelines.

The Lottery previously had two audit functions: an internal
audit function and an EDP audit function. In 1988 Lottery
officials decided two functions/positions were not needed and
discontinued the internal audit position. The EDP audit position
remained so computer operations could continue to receive an
independent review. In 1990, the EDP audit function was
expanded to include some internal audit responsibilities. As of
August 2, 1991, the Lottery's auditor position became vacant.

We found the audit function performed only limited EDP and
internal audit work in terms of specific, formalized audits. For
example, only one report has been issued by the internal audit
function relating to EDP security since 1987, and most of the
internal audit work consisted of performing the Guaranteed
Low-End-Prize-Structure (GLEPS) test and end-of-game

inventory audits. During our audit we identified several other issues regarding the Lottery's audit function. We believe the cause of these concerns is the continually changing role of the audit function within the Lottery and a subsequent lack of emphasis on that role. The following sections discuss the specifics of the issues.

Reporting Responsibility Should Be Changed

The internal audit function should report to an individual manager or management group that allows independence from the operations and staff being reviewed as part of the internal auditor's work. During our audit, the Lottery's internal audit function reported to the director of security who is responsible for Lottery security and also administers warehouse operations. Since these areas are routinely reviewed as part of existing internal audit work, having the internal auditor report to the director of security affected the independence of the audit function. As a result of our audit finding, Lottery officials changed the reporting structure of the internal audit function to report to the Lottery director.

Although Lottery management worked on a internal audit charter for over a year, it was still in draft stage during our audit. Such a document would generally explain the authority and responsibilities of the internal audit function to all Lottery personnel. For example, the former internal auditor indicated some staff resistance to review of Lottery operations outside the security department. One reason for this resistance was due to the lack of Lottery policies which authorize the internal audit function to review all Lottery operations. The Lottery should finalize its charter for internal audit, and use formal audit standards such as those established by the Institute of Internal Auditors as guidelines for the operation of the internal audit function. Finally, the Lottery should establish formal policy specifying the internal audit function's authority and role.

<u>**Recommendation #9**</u>

We recommend the Lottery:

A.   Revise its organizational structure so the internal audit function reports to the Lottery director;

B.   Finalize an internal audit charter; and,

C.   Establish policies specifying the role of the internal audit function.

Documentation of Audit Work Inadequate

The internal auditor did not develop audit plans prior to performing audit work. Audit plans generally summarize work to be done for presentation to management so informed decisions can be made on audit work and scope. The plans also document the specific audit work to be done and allow for referencing of completed work. Additionally, the internal auditor did not adequately document interviews, observations, audit tests, and conclusions.

As a result of not having plans or other adequate documentation, Lottery management could not review work performed by the internal audit function. Furthermore, without adequate documentation Lottery management cannot place reliance on work performed by the internal audit function.

During our previous security audit completed in 1989, we also found the internal audit function was not documenting work. In a formal response the Lottery indicated the internal audit function would begin documenting its work immediately. However, the Lottery neither established policy nor implemented procedures for documentation of audit work.

We believe the development of audit plans would provide the foundation for development of a sound audit approach. Additionally, documentation of audit work performed is

necessary in order to place any reliance on the work performed. As a result of our audit findings, the Lottery director indicated the internal auditor would develop an annual audit plan. The director also indicated the internal auditor would provide better documentation of audit work completed.

Recommendation #10

We recommend the Lottery require adequate documentation of internal audit work.

Training Should Be Provided

One of the key components in the management of personnel is the provision of training which will improve or enhance employees' abilities to perform their tasks. Training helps increase productivity/performance and can improve the self-satisfaction people obtain from performing their jobs.

As part of our examination of management controls, we reviewed the training provided to personnel having security-related positions. Overall, we found the Lottery provides only minimal training for all staff. We more closely examined the actual and potential impact of the limited training given to security, data processing, and internal audit personnel. The following sections discuss the training issues noted regarding these positions.

Security Staff Training Should Be Increased

The Montana Lottery security department is responsible for the security of the Lottery. Specifically, security staff responsibilities are: ·

--   evaluate and maintain the security systems used to restrict access to various Lottery operations;

--   establish and oversee security procedures relative to the various Lottery games;

-- verify winning ticket claims;

-- investigate stolen tickets;

-- conduct employee background checks; and,

-- assure EDP activities are monitored and restricted to those employees requiring computer access.

During our review of training records and interviews with security staff, we noted neither the director of security nor the Lottery investigator have received any formal training specific to their security functions since 1987. For example, the director of security and the Lottery investigator have not received any training in the area of electronic data processing (EDP) security although the position descriptions for both positions require at least a basic understanding of EDP security.

Since the Lottery has not provided EDP security training to security personnel, greater potential exists for a breach of security in the Lottery computer system. Additionally, by not providing EDP security training to the director of security, the Lottery may not be in compliance with section 23-5-1013, MCA. This statute requires the director of security to be knowledgeable in computer security. Lottery officials believe the security staff have a basic understanding of EDP security. However, during the course of the audit we found a number of fundamental computer security weaknesses. We believe if security personnel had a better understanding of EDP security these weaknesses might not exist. In response to our contention, the director of security indicated he relies on the internal audit function to answer questions or provide information regarding the Lottery's computer system. However, as mentioned earlier in this report, the internal auditor performed only limited EDP audit work. Therefore, the amount of reliance which may be placed on the internal auditor's work is speculative.

We believe a training plan should be developed and implemented for security personnel. EDP security training is available through a number of sources. This training could help

increase/improve existing Lottery security as well as provide internal training resources.

Data Processing Staff Training Could Be Improved

The major data processing operations of the Lottery are run on a minicomputer called Stratus System 32. Stratus verifies winning tickets, writes checks to winners, and collects payments from retailers using Electronic Funds Transfer (EFT). Data processing personnel at the Lottery make ongoing modifications to the software in order to provide specific information requested by other Lottery departments.

During our review of Lottery training records, we noted data processing staff have not received any formal training specific to the hardware or software applications of the Stratus system. Additionally, training records revealed the Lottery has not established a formalized training plan for its data processing staff. Interviews with the data processing staff indicate training has been limited to reviewing system manuals and on-the-job training.

As a result of data processing personnel not receiving formal training, they may not be fully aware of all the commands and/or programs found on the Stratus system. In addition, a lack of system training may increase the time it takes to develop, modify, or maintain operating software for the Stratus system, potentially causing disruptions of Lottery operations. This in turn creates a greater potential for the security of the system to be compromised.

Formal training would further familiarize the data processing staff with the operation of the Stratus system. This would include such techniques as how to identify and make more timely corrections and/or modifications in the system.

Due to other budget priorities, Lottery officials indicated they have been unable to provide the necessary training on the Stratus system to data processing staff. However, Lottery officials agree this training should be provided and will investigate the most cost-effective way of providing the training.

More Specific Training
Is Necessary For
Internal Audit Duties

A Lottery goal is to provide training to employees to make them more efficient. During our review, we determined the internal auditor had not received sufficient training to adequately perform the necessary job duties. A review of Lottery training records indicated no audit-related training was ever provided to the internal auditor. Without the necessary training, the auditor was not adequately prepared to carry out the responsibilities of the job. Lack of audit-related training may have been part of the reason adequate audit documentation was not maintained.

Prior to the auditor leaving his position, Lottery officials stated they were looking into various types of training available for the position. When training data is compiled, Lottery officials indicated they would determine the feasibility of the internal auditor attending some training courses.

Summary

We believe employee training offers management the opportunity to expand employee skills and at the same time improve an organization's operational capabilities. In each of the sections noted above we have identified areas where training could improve Lottery operations. We believe the Lottery should make every effort to increase the training provided to security-related staff in order to enhance existing Lottery security and develop additional skills for Lottery personnel.

Recommendation #11

We recommend the Lottery develop and implement appropriate training programs for security-related personnel.

Policies and Procedures Are Incomplete

Throughout the audit we identified areas where the Lottery has not developed and/or formalized security policies and procedures. Some of the areas where policies and procedures could be developed include:

-- <u>On-line Ticket Validation</u> - The Lottery should document the process of how winning tickets for the on-line games are to be validated. The procedures should include the steps for processing both walk-in and mail-in claims and what to do in the event a questionable ticket is received.

-- <u>Retailer/Contracted Employee Investigations</u> - The Lottery conducts background investigations on all contracted employees (i.e.janitorial firm) and all retailers. The process for conducting these investigations should be documented.

-- <u>Card Access Back-Up Plan</u> - Because the card access system is the major security system to control access to different areas of the Lottery, the Lottery should establish a formalized back-up plan in the event the system becomes inoperative. This back-up plan could be incorporated into overall security policies and procedures.

Lack of formal policies and procedures can cause inconsistencies in Lottery operations and could compromise Lottery security. For example, background investigations should be conducted on any contracted employees since they would generally have access to the Lottery building. Although actual procedures followed by security personnel for conducting investigations on contracted employees may be adequate, the Lottery cannot ensure consistency in this area. Established policies and procedures provide specific direction for new employees and provide clarification for current employees in conducting their job duties.

Based on interviews with Lottery personnel, we found these policies and procedures have not been developed for a variety of reasons. For example, Lottery officials indicated they have not established policies and procedures for validating on-line tickets because of other priorities and commitments, such as implementing the on-line games. We found other policies or procedures have not been established due to an oversight and/or the Lottery did not believe it was necessary to put them in

writing. We believe the Lottery should establish written policies and procedures for the areas discussed above.

Recommendation #12

We recommend the Lottery establish formal policies and procedures for:

A.   On-line ticket validations;

B.   All background investigations for retailers and contracted employees; and,

C.   A backup plan for the card access system.

Agency Response

Recommendation #1

We recommend the Lottery comply with statutory and internal security policies for obtaining and classifying employee fingerprints.

> We concur with your recommendation. Since determining that certain areas of law and policy were not fully complied with, action has been taken to correct this problem and assure that it not reoccur.

Recommendation #2

We recommend the Lottery:

A.   Document all information obtained during employee background investigations; and

B.   Complete the development of and implement the background investigation checklist.

> We concur with your recommendations. We have completed and are using a background investigation checklist. When applicable, this checklist will be used to document the work completed on a background investigation. When the form is not applicable, investigation activity will be documented in memo form.

Recommendation #3

We recommend the Lottery control access to program and technical documentation for the Stratus computer system.

> We concur with your recommendation. The technical documentation which was located in the office area has been removed. The Montana Lottery is currently negotiating a new lease. One of the items to be agreed upon prior to the lease renewal would cause some doors to be changed. This would reroute traffic between our office area and our warehouse. This change would make the computer programmer/operator area a more secure area and provide for a better work environment. Those manuals (technical documentation) which were located in the programmer/operator area are now locked in the data processing manager's office with key controls.

Recommendation #4

We recommend the Lottery maintain the additional early warning water detection device in the computer room.

> We concur with your recommendation. An early warning water detection device was installed in April, 1991, and is being maintained.

Recommendation #5

We recommend the Lottery transport all computer tapes in protective coverings.

> We concur with your recommendation. A second tape transport case was purchased, and is in use for the purpose of transporting the two tapes in question.

Recommendation #6

We recommend the Lottery perform more detailed data security reviews as suggested by section 2-15-114, MCA.

> We concur with your recommendation. The Lottery Director has instructed the Lottery Security Group to examine section 2-15-114, MCA, in order to more fully comply with the code, and to continually improve Lottery security.

Recommendation #7

We recommend the Lottery establish the completion of performance evaluations as a management priority.

> We concur with your recommendation. A great amount of work has been accomplished in this area during the past several months. The date of December 1, 1991 has been set for the completion of the evaluation standards.

Recommendation #8

We recommend the Lottery establish and implement policies and procedures to improve security department management information.

> We concur with your recommendation. We will do an evaluation of our needs with regard to management information. This will be completed by January 1, 1992. At that time we will form the policies and procedures necessary to gather the needed information. We will further determine the form in which that information will be available.

Recommendation #9

We recommend the Lottery:

A. Revise its organization structure so the internal audit function reports to the Lottery Director.

> We concur with your recommendation. As shown on pages 7 and 8 of this document, our internal audit function has been moved and answers to the Lottery Director.

B. Finalize an internal audit charter.

> We concur with your recommendation. Our audit charter was completed several months ago.

C. Establish policies specifying the role of the internal audit function.

> We concur with your recommendation. The internal auditor's position description, the audit charter, and an annual audit plan create the policies specifying the internal audit function, and all of these have been completed.

Recommendation #10

We recommend the Lottery require adequate documentation of internal audit work.

> We concur with your recommendation. Our audit position is currently vacant. Prior to the position's vacancy, an annual audit plan was completed. We believe this is a start to better documenting the work of the internal auditor. Each individual audit will also have a plan.

Recommendation #11

We recommend the Lottery develop and implement appropriate training programs for security-related personnel.

> We concur with your recommendation. We believe we have several areas where training is needed. Prior to March, 1992, we will identify areas where training is needed, locate training which meets those needs, and set a training schedule.

Recommendation #12

We recommend the Lottery establish formal policies and procedures for:

A.   On-line ticket validations;

> We concur with your recommendation. Our on-line ticket validations policy has been formalized and is in use.

B.   All background investigations for retailers and contracted employees;

> We concur with your recommendation. Additions to our investigations procedures have been completed and are in use. They address retailers and contract employees.

C.   A backup plan for the card access system.

> We concur with your recommendation. Our policy and procedures concerning a backup plan for our card access system has been formalized and is in use.